

## Earth's Materials and Changes

### 3-3 The student will demonstrate an understanding of Earth's composition and the changes that occur to the features of Earth's surface. (Earth Science)

#### 3.3.6 Illustrate Earth's land features (including volcanoes, mountains, valleys, canyons, caverns, and islands) by using models, pictures, diagrams, and maps.

**Taxonomy level:** 2.2-B Understand Conceptual Knowledge

**Previous/Future knowledge:** The identification of specific land features found on Earth is new to this grade. In 5<sup>th</sup> grade, students will explain how volcanic eruptions affect the land (5-3.1) and will compare continental and oceanic landforms (5-3.3). In 8<sup>th</sup> grade (8-3.7), students will illustrate the creation and changing of landforms including volcanic eruptions and mountain-building.

**It is essential for students to** know that Earth's surface has many natural shapes or features called *landforms*. Earth's land features that can be seen on models, pictures, diagrams, and maps include:

##### *Volcanoes*

- An opening in Earth's surface from which lava flows.
- As the lava hardens and builds up, a *volcanic mountain* forms.

##### *Mountains*

- A place on Earth's surface where the land is much higher than the land that surrounds it.
- Some mountains are tall and rocky and others are rounded and covered with trees.
- A mountain area that has a flat top is called a *plateau*.

##### *Valleys*

- A lowland area between higher areas such as mountains.
- Sometimes rivers can wear away land to form valleys.

##### *Canyons*

- A deep valley with very steep sides.
- They are often carved from the Earth by a river.

##### *Caverns*

- A large cave or underground chamber.
- Caverns or *caves* are formed underground when water wears away the rock.

##### *Islands*

- An area of land that is entirely surrounded by water.
- Sometimes islands are located in lakes, or they may be out from the seashore as barrier islands.

**It is not essential for students to** name specific landforms such as Rocky Mountains or Carlsbad Caverns.

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#### **Assessment Guidelines:**

The objective of this indicator is to *illustrate* Earth's land features; therefore, the primary focus of assessment should be to give or use illustrations to show understanding of land features of Earth (including volcanoes, mountains, valleys, canyons, caverns, and islands). However, appropriate assessments should also require students to *identify* a feature on a world map or model; *compare* features based on their descriptions; or *identify* where a feature might be found.